

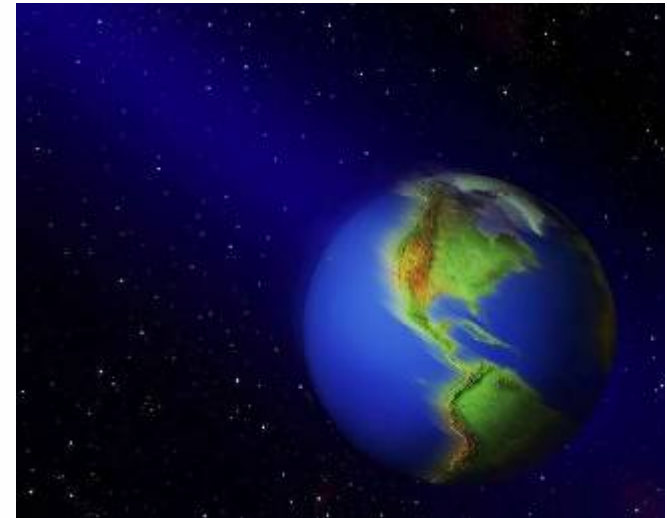


# Benefits, and the Future of, Biodiesel

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Communications Specialist  
National Biodiesel Board



- Benefits
- Area Users
- Biodiesel Tax Incentive
- Industry Priorities
- Public Opinion Research
- Other Exciting Developments

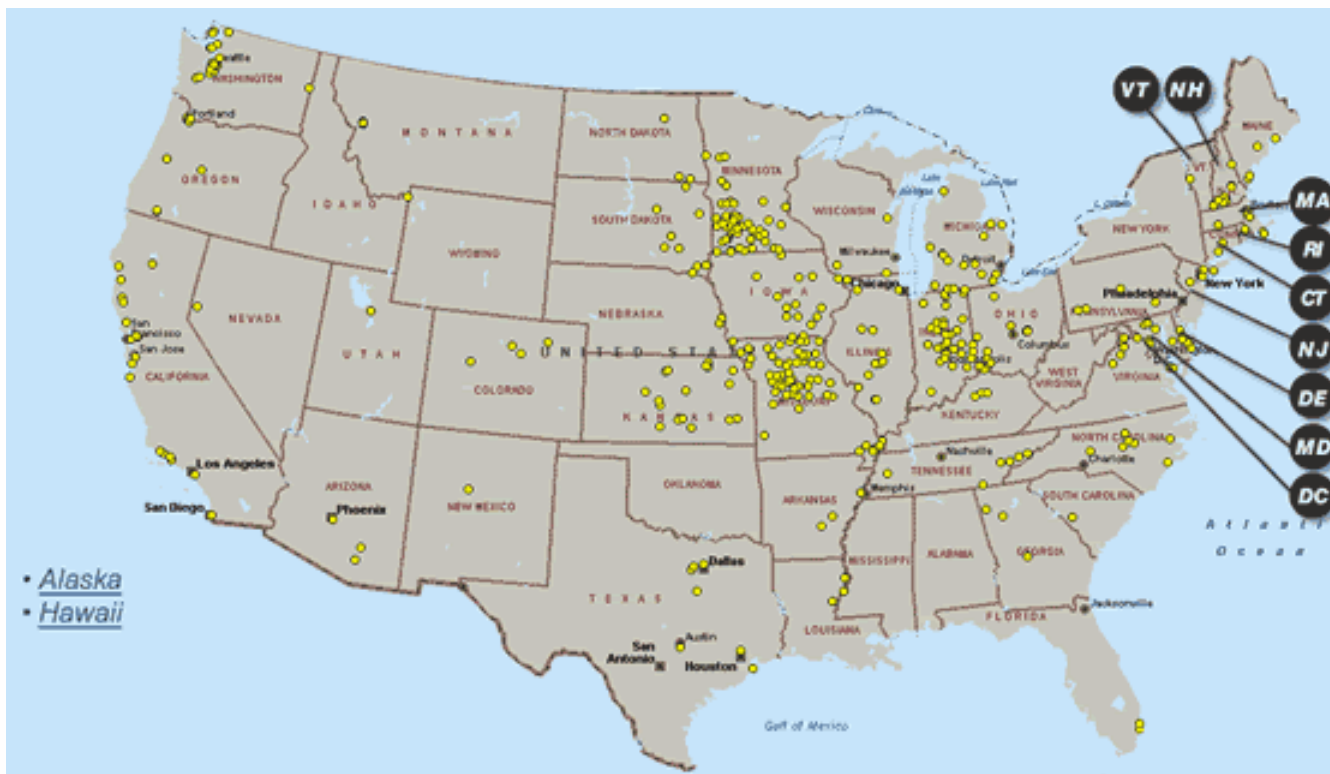


# The Basics

- What biodiesel is
- How it's used
- Benefits
  - ◆ Environment
  - ◆ Energy Security
  - ◆ Engine
  - ◆ Other (economy, health)
- Blend levels brief



# Retail Availability



# More on Emissions Benefits

## Regulated

- ◆ Total Unburned Hydrocarbons
- ◆ Carbon Monoxide
- ◆ Particulate Matter
- ◆ NOx

## B100

-67%

-48

-47

+10

## B20

-20%

-12

-12

+2

## Non-Regulated

- ◆ Sulfates
- ◆ PAH
- ◆ nPAH (nitrated)
- ◆ Ozone potential of speciated HC

-100%

-80

-90

-50

-20%

-13

-50

-10



# Wisconsin Users

- Univ. of Wisconsin-Madison
- Madison Gas and Electric
- Farmers





# Biodiesel Tax Incentive In Action

## Federal Excise Tax Credit

- 50 cent credit for each gallon of biodiesel blended into diesel fuel
- \$1 for “agri-biodiesel”
  - ◆ First use veg oils and fats



# How is it accessed?

- Credit taken at the blender level
- Benefits all consumers
  - ◆ ABOVE THE RACK (terminal)  
Refiners can submit form to be credited against other tax liability they carry
  - ◆ BELOW THE RACK  
Smaller petroleum distributors can apply for a rebate for the full amount, even if they don't carry tax liability.





# How will it affect price?

- **There will be variables** that determine the cost differential, but the tax incentive will help close the gap.
- Biggest variable will be infrastructure
- Informal analysis: Given current crude oil prices, we could see a substantial increase in demand after the regs are implemented.



# How will consumers benefit?

- **Some already are.**
- **Competition** will drive blenders to pass on savings to consumers.
- Evidence of this can be seen in the ethanol market and the bioenergy market. Nearly the full amount of the credits were passed through.



# Find out more.

➤ [www.biodiesel.org/news/taxincentive](http://www.biodiesel.org/news/taxincentive)



# Next Priorities

- Extension of the Tax Incentive
  - ◆ Energy Bill conference between House, Senate
- More Robust RFS/Renewable Fuels Standard



# Market Projections



# Market Projections



- How much demand will the incentive create?
  - ◆ 50 mil/gal
  - ◆ Could be much higher over next decade, based on outside factors like crude oil price
  - ◆ FY04 was 25 mil/gal





# Market Projections



- What is industry capacity?
- ◆ Currently up to 110 million gallons/yr.
  - ◆ Additional 110 mil/gal/yr. through chemical industry
  - ◆ More plants planned – 240 mil
  - ◆ Capacity could be doubled within 12 – 18 months

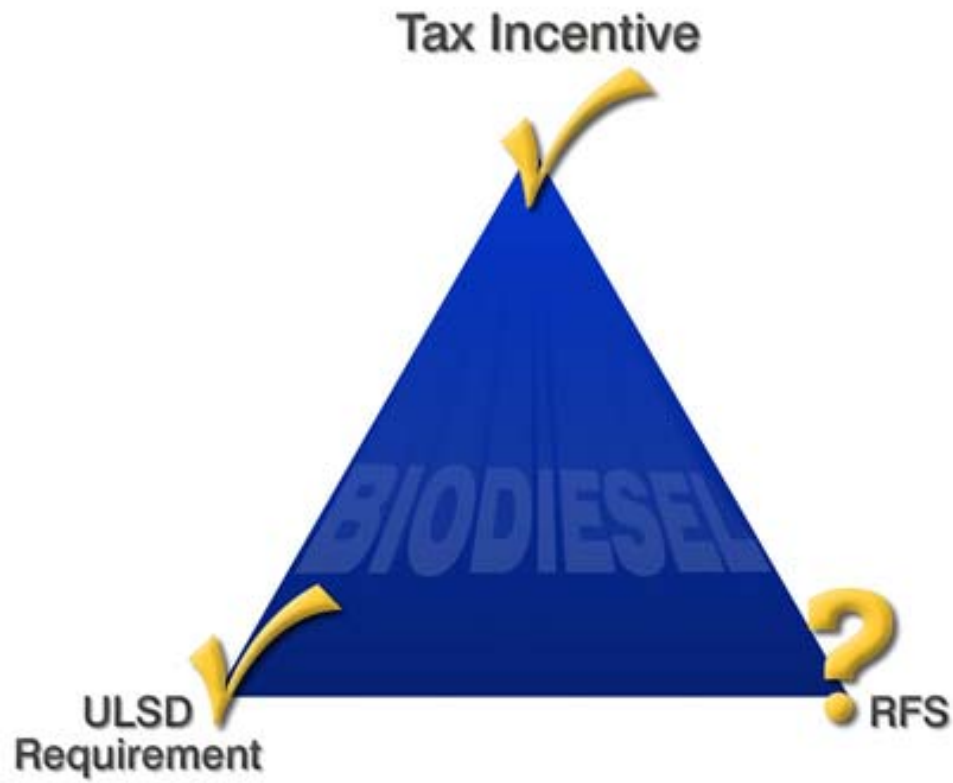


# Market Projections

- Biggest market has traditionally been B20
  - ◆ Will continue to play vital role
- LOW BLEND is seen as single best opportunity for biodiesel growth



# Broad Biodiesel Use as ULSD Lubricity Additive?



# Biodiesel as Lubricity Additive in ULSD

- 2% biodiesel used as a lubricity additive in 38 billion gallons of on-road fuel = 760 million gallons of biodiesel



# Quality is Key

- With rapid growth, fuel quality will take on increased importance
- BQ-9000
  - ◆ Voluntary quality control program set up through NBB
  - ◆ National Biodiesel Accreditation Commission
  - ◆ Independent audits
  - ◆ Peter Cremer N. America, W. Central







# Industry Priorities (Research)

- **B20 Evaluation Team**  
Working for OEMs to recommend B20
- **2007 Engine Testing and Technology Development Program**  
To get B20 approved for 2007 Engines



# Industry Priorities (Research)

## ➤ Cold Flow Improvement Tests

- ◆ NBB testing additive package for B100

## ➤ NOx Emissions

- ◆ Some success with additives
- ◆ NBB is evaluating potential of certifying NOx additives through CARB testing
- ◆ With heating oil – Brookhaven Lab shows 20% reduction in NOx



# USDA Biodiesel Education Program

- Market Education
- Petroleum Industry Outreach
- OEM Support



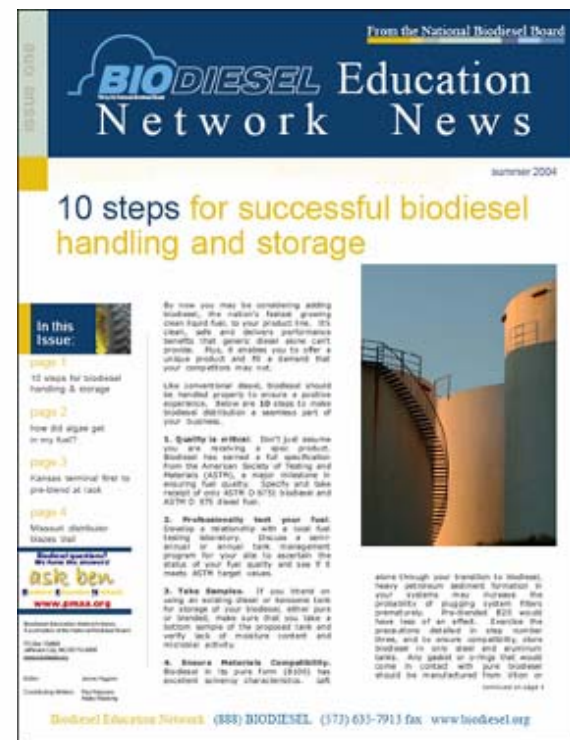
# USDA Biodiesel Education Program

- Market Education
  - ◆ School Bus - Educators and Decision Makers
  - ◆ Trucking Industry
  - ◆ Marine



# USDA Biodiesel Education Program

- Petroleum Outreach
  - ◆ Home heating oil
  - ◆ Biodiesel Education Network
  - ◆ Cold Flow Project support



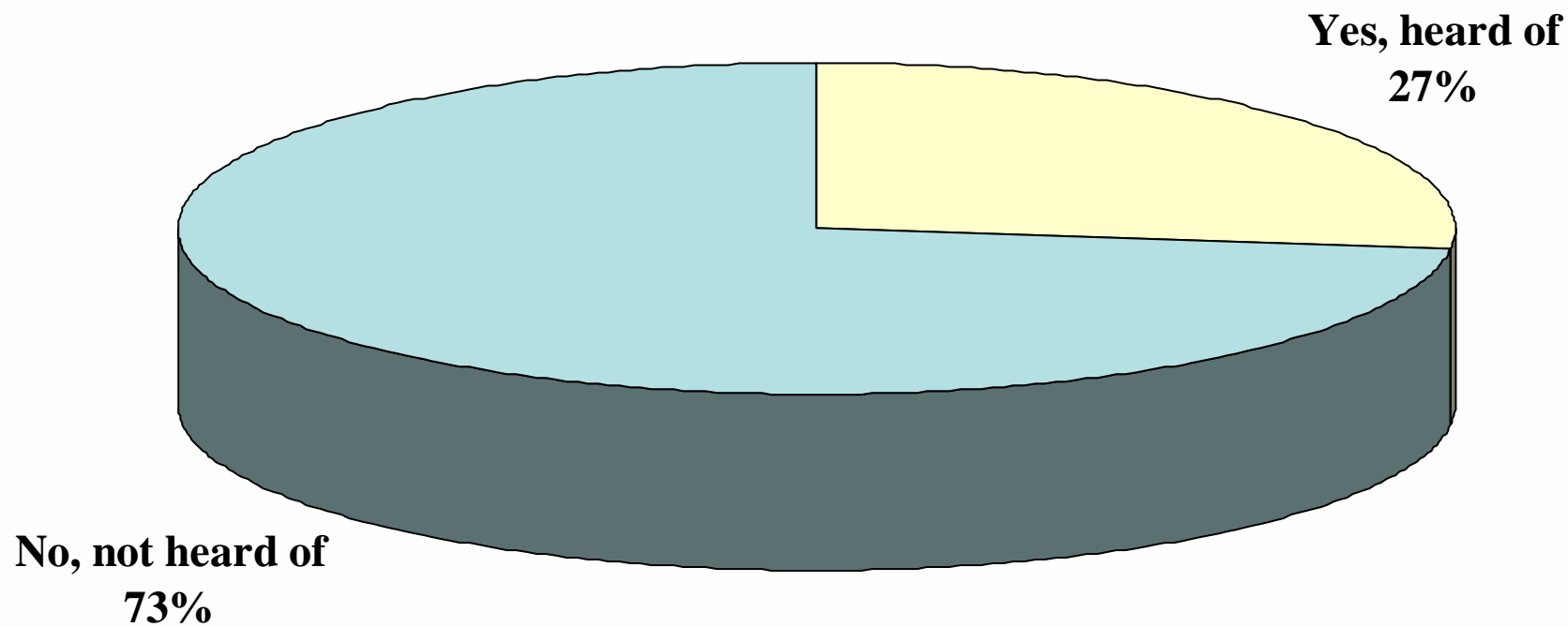
# Awareness & Perceptions of Biodiesel





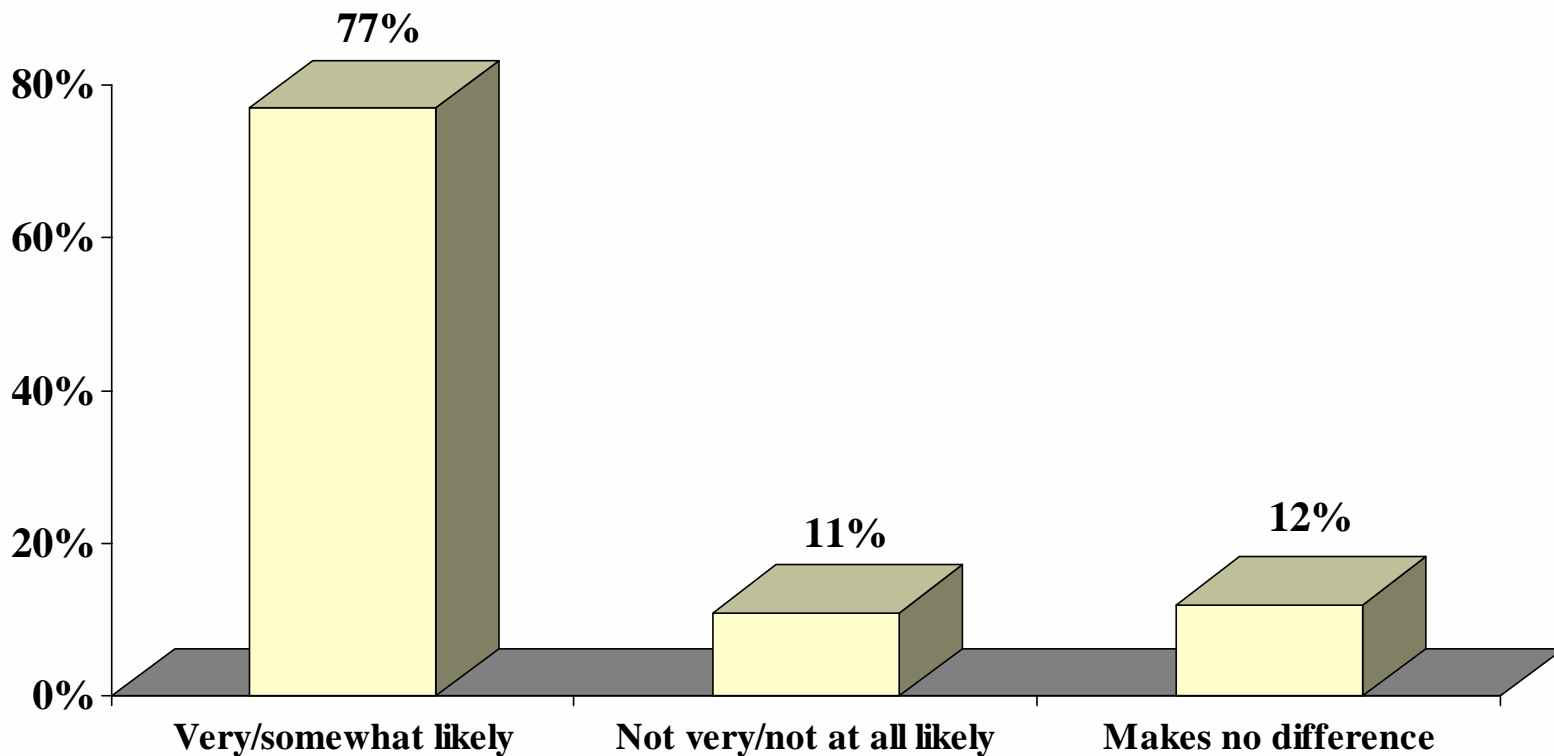
# 1/4 of Consumers Are Familiar with Biodiesel

“Are you familiar with a product called biodiesel?” (Q1)



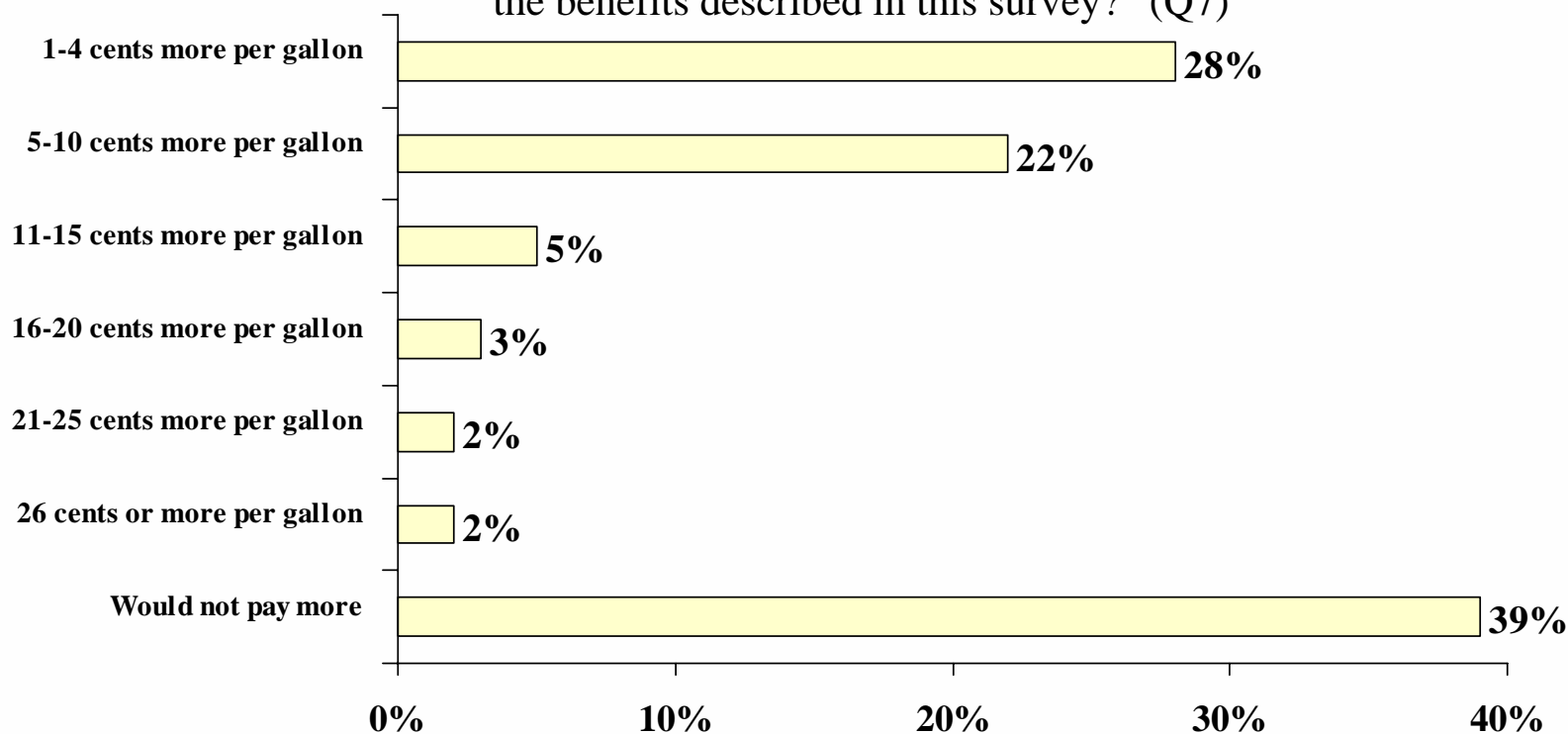
# 3/4 of Consumers Say They Would Use Biodiesel

“Assuming you could use biodiesel in your vehicle, how likely would you be to use this product, very likely, somewhat likely, not very likely, not at all likely?” (Q5)



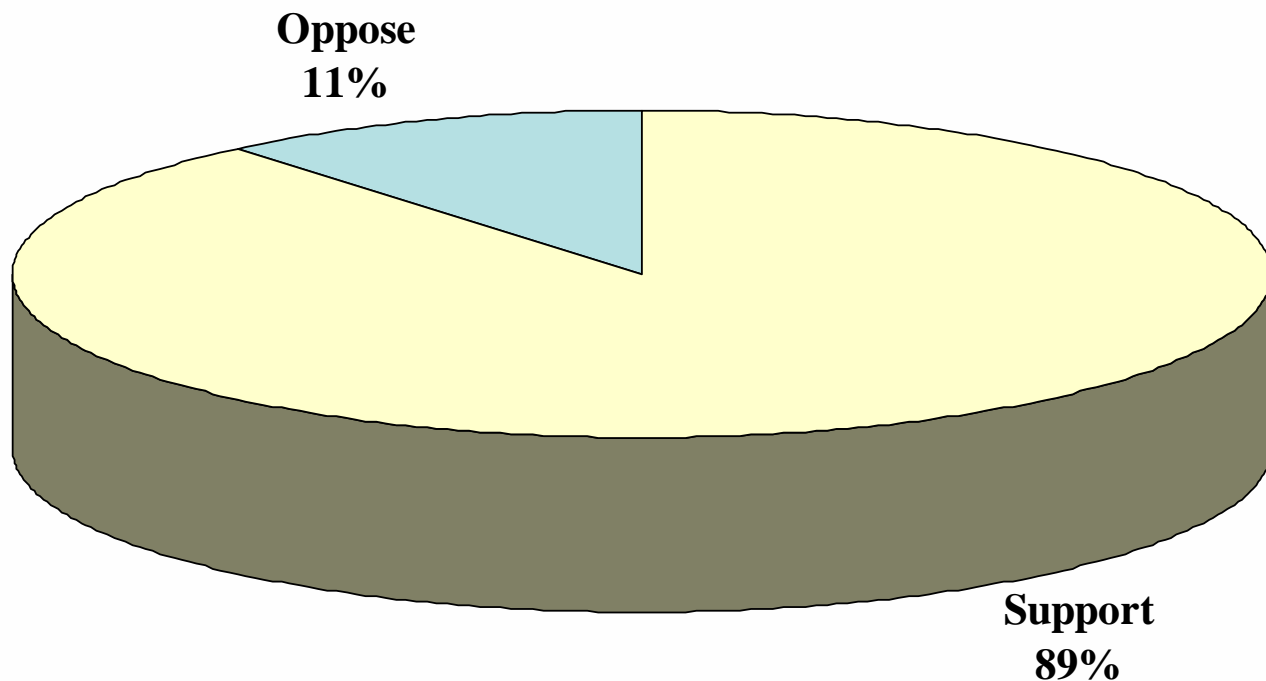
# Majority Willing to Pay at Least a Little More for Biodiesel

“After everything you’ve read so far about biodiesel, what is the most you would you be willing to pay for biodiesel, above the price of regular fuel, assuming you could use it in your vehicle and it provided the benefits described in this survey?” (Q7)



# Consumers Widely Support a Federal Tax Incentive

“After everything you’ve read so far about biodiesel, would you support or oppose a federal tax incentive that would make biodiesel approximately the same price as, or a little more than regular diesel to encourage its use in the U.S.?” (Q8)



# Exciting Developments

- President Visits Biodiesel Plant
- Navy's Use – B20
- Willie Nelson's Biodiesel



# Other Exciting Developments

## ➤ Jeep Factory Fill

- ◆ B5



## ➤ John Deere - B2

## ➤ Farm Aid

- ◆ Used biodiesel at show in last Fall

- ◆ Neil Young, Willie Nelson





# 2006 Biodiesel Conf. & Expo

Feb. 5 – 8

San Diego, CA

[www.biodiesel.org](http://www.biodiesel.org)

